

Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): Method for balancing rotors without journals, in which the rotor (2), which has a bore (6), is arranged on a bearing mandrel (5) of a balancing device and fluid is brought between rotor and bearing mandrel faces located opposite one another and the rotor (2) is set into rotation, wherein oscillations of the bearing mandrel (5) induced by imbalance are drawn on to determine the imbalance, ~~characterized in that~~ wherein the rotor (2) is supported in a first bearing region in the radial direction by means of a liquid and in the bearing arrangement of a rotor (2) which has a pocket hole bore it is supported in a second bearing region in a presettable axial position on the bearing mandrel (5) by supplying fluid to a fluid chamber (40) positioned between the end of the pocket hole bore and the end of the bearing mandrel.

Claim 2 (Currently Amended): Method according to claim 1, ~~characterized in that~~ wherein the presettable axial position of

the rotor (2) on the bearing mandrel (5) is set by changing the volume of the fluid chamber (40).

Claim 3 (Currently Amended): Method according to claim 1 ~~or claim 2, characterized in that~~ wherein the volume of the fluid chamber (40) is changed by pressure build-up in the fluid chamber (40).

Claim 4 (Currently Amended): Method according to claim 3, ~~characterized in that~~ wherein with a rotor (2) held with an axis inclined towards the horizontal plane, the axial position of the rotor (2) on the bearing mandrel (5) is determined by the pressure arising in the fluid chamber (40) owing to the weight component of the rotor (2) and the pressure of the fluid supply, the pressure in the fluid chamber (40) being limited to a presettable value.

Claim 5 (Currently Amended): Method according to claim 4, ~~characterized in that~~ wherein at least one outlet channel is provided between associated rotor and bearing mandrel faces, the flow cross-section of which is changed to limit the pressure.

Claim 6 (Currently Amended): Method according to ~~one of the preceding claims, characterized in that~~ claim 1, wherein the support in the first and second bearing regions is performed by means of a liquid, preferably an oil or oily liquid as fluid.

Claim 7 (Currently Amended): Bearing arrangement with a bearing mandrel (5) for holding a rotor (2), without journals but having a bore, in a balancing device in at least one first and one second bearing region, the bearing mandrel (5) having orifices for the passage of fluid, ~~characterized in that~~ wherein first orifices (10) for fluid supply and at least one second orifice (20) for fluid discharge are provided in the bearing mandrel, when holding a rotor (2) having a pocket hole bore the bearing arrangement has a fluid chamber (40) constructed between the end of the pocket hole bore and the end of the bearing mandrel, which has at least one inlet and one outlet channel and the bearing mandrel (5) has at least the outlet channel.

Claim 8 (Currently Amended): Bearing arrangement according to claim 7, ~~characterized in that~~ wherein the first orifices (10) are located on bearing mandrel circumferential faces in the first bearing region.

Claim 9 (Currently Amended): Bearing arrangement according to claim 7 ~~or claim 8, characterized in that~~ wherein the first orifices (10) are located in two bearing planes (7, 8) of the bearing mandrel (5) at an axial distance from one another.

Claim 10 (Currently Amended): Bearing arrangement according to ~~one of the preceding claims claim 1, characterized in that~~ wherein the second orifice (20) is arranged adjacent to the bearing planes (7, 8) and/or between them.

Claim 11 (Currently Amended): Bearing arrangement according to ~~one of the preceding claims claim 1, characterized in that~~ wherein the inlet channel is formed by the annular gap (42) between the outer circumference of the bearing mandrel and the wall of the bore and/or a bore (43) ending in the end face of the bearing mandrel (5).

Claim 12 (Currently Amended): Bearing arrangement according to ~~one of the preceding claims claim 1, characterized in that~~ wherein the outlet channel can be connected to the second orifice (20) and is formed by at least one exterior longitudinal groove (41) of the bearing mandrel (5) starting from the end face of the bearing mandrel (5) and/or an outlet bore.

Claim 13 (Currently Amended): Bearing arrangement according to claim 12, ~~characterized in that~~ wherein the outlet orifice of the longitudinal groove (41) connecting the fluid chamber (40) to the second orifice (20) in the bearing mandrel (5) and/or the outlet bore can be covered by the wall of the rotor bore (6).

Claim 14 (Currently Amended): Bearing arrangement according to ~~one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein inside the pocket hole bore an annular space (44) is constructed between the rotor (2) and the bearing mandrel (5), which is connected to the outlet channel and the second orifice (20).

Claim 15 (Currently Amended): Bearing arrangement according to claim 14, ~~characterized in that~~ wherein the annular space (44) is formed on one side by a transition section between a first and a second section of the pocket hole bore and on the other side by a transition section between a first and a second section of the bearing mandrel (5).

Claim 16 (Currently Amended): Bearing arrangement according to claim 15, ~~characterized in that~~ wherein a control edge (45) is formed between the transition section and the section of the pocket hole bore in which the fluid chamber (40) is located.